

# The 70 Percenters

**Panel Members:** James B. Moncrief, USGA Green Section, Georgia  
Crawford Rainwater, Club Official, Pensacola, Florida  
Arthur Snyder, Superintendent, Phoenix, Arizona  
Charles Underwood, Superintendent, Lawrenceville, Georgia  
Robert Williams, Superintendent, Highland Park, Illinois

**Moderator:** William H. Bengyfield, USGA Green Section, California

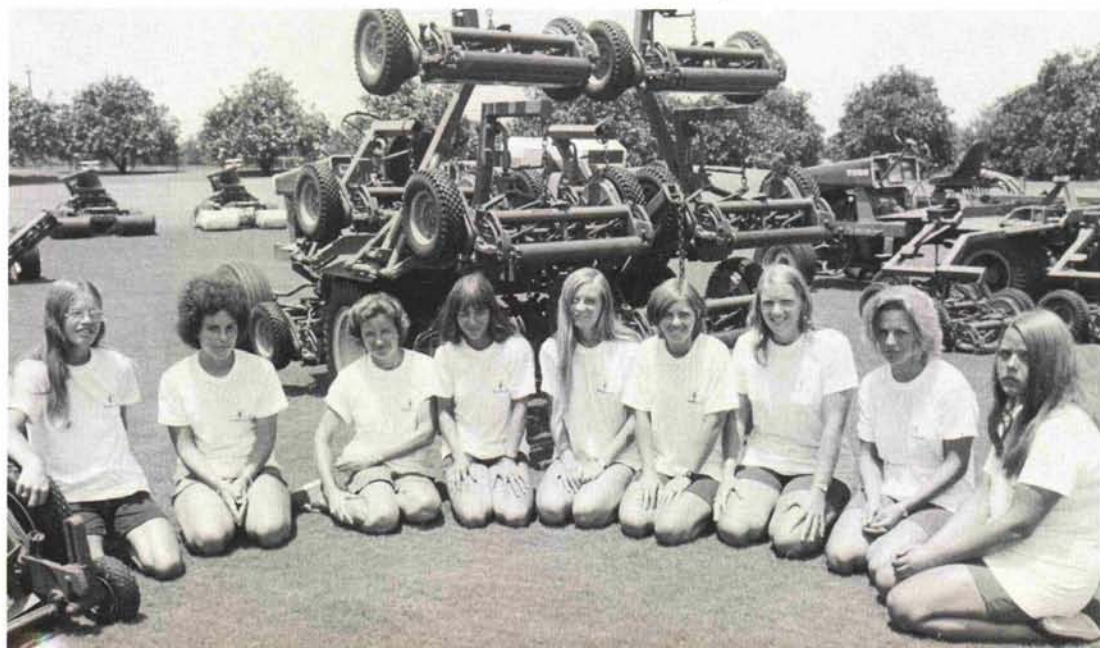
**Moderator:** In 1820, Alexander Monro received 4£ (about \$15) a year from the members of the Aberdeen Golf Links. For this he was to take charge of the links, provide accommodation for the "member's boxes," pay particular attention to keeping the holes in good order and to be at the call of the members on all necessary occasions. ("Something From Thistle Dhu," Gary Wiren, USGA Green Section Record, May, 1972). Thankfully, there have been some changes in the last 150 years.

During the past 20 years for example, every study of golf course maintenance costs has shown labor to be the largest single cost item. In fact, for every \$100 spent by the golf course superintendent today, \$60 to \$70 goes for labor! Thus our topic, "The 70 Percenters" is an extremely important one. Let's

look at it in some depth. From the club's point of view, there has been a marked increase in costs and benefits in Social Security in recent years. Should clubs review and reconsider their pension and employee retirement plans?

**Rainwater:** Indeed they should. The new amendments to the Social Security law are the most drastic ever made. Both cost and benefits have been greatly increased for 1973 and it must also be noted that additional increased costs and benefits are automatically built into future years. I would strongly recommend that if you have a supplemental pension or profit-sharing plan that you review it immediately in view of the changes in Social Security. See if your total plans are equitable. Do they meet your desired goals? Can you afford their costs—now and in the future? Personally, I prefer to see supplemental plans integrated with

*Superintendent Arlin Grant has included nine women on his maintenance crew for 54 holes at Innisbrook Golf and Country Club.*



Social Security so as to automatically adjust benefits when changes in the Social Security law take effect.

**Moderator:** Can you tell us about the new Occupational Safety and Health Act (Department of Labor) and how it may relate to golf course maintenance crews?

**Rainwater:** My advice is to study the new OSHA requirements and get your house in order. In my business, we have already had inspections and they can be very rough.

**Moncrief:** As I understand it, you must permit an inspection of safety and health conditions on the spot and without advance notice. I understand Federal Inspectors have uncovered violations in three out of every four places visited so far.

**Williams:** I'd suggest checking the January, 1973 issue of The Golf Superintendent magazine. It carried complete information on OSHA.

**Moderator:** Let's talk a bit about the management of labor. What is the superintendent's greatest weakness in handling the 70 percent labor expenditure?

**Williams:** The obvious weaknesses lie in organization, communication and motivation. Superintendents will have to become much more aware of the necessity for employee motivation. Golf course workers seek recognition and achievement through their work in a pleasant environment. What they want, in addition to their pay check, is to feel a sense of contribution, belonging to a team. I believe educational seminars for the superintendent will provide many answers and eventual improvement.

**Moncrief:** Getting the maximum effort from each employee is certainly up to the superintendent. But he must discipline himself first if he wants to motivate others. He must "know each man" and, once he does, act accordingly.

**Moderator:** In any discussion of labor efficiency, we should not overlook the processes involved in hiring a new man. What procedure do you follow? Is there something better than a hit-or-miss, trial-and-error method?

**Underwood:** I think through the process of an interview with a prospective employee where you ask questions directly, rather than letting him tell you about himself, is a start. I find that after talking to a man I can usually tell if he is the type of individual I want to hire. If this first step is positive, then proceed with an investigation into his previous employment, work habits, honesty and dependability.

**Snyder:** Because of relatively low pay and lack of opportunity for advancement, few apply for jobs on a golf course except on a temporary basis, then leave as a better paying job turns up. It is, therefore, necessary that we select those most likely to stay with us. At our club, we have every applicant fill out an application form which delves quite thoroughly into his past experience, the type of work he has done and length of time spent on each job. He is interviewed personally in order to get an idea of his attitude toward work of this kind, also the degree of eagerness and alertness displayed, as against apathy.

**Williams:** Grounds personnel are becoming more stabilized perhaps because salaries, benefits, etc. are better than in the past. There is less turnover from year to year. The men are generally being trained to perform in more than one capacity and this allows much greater versatility and flexibility in assignment of daily tasks.

**Moderator:** Why is it some superintendents can maintain an 18-hole course in top condition with eight or nine men while others can't get the job done with 12 or 15 men?

**Underwood:** First, we must determine what top condition really means. Other factors to be considered include the number of times traps are raked weekly, fairway, tee and green mowing frequency and the amount of special hand maintenance chores which have to be accomplished. The presence of labor-saving devices and availability of capable people to operate them are also involved. In the final analysis, it depends on the superintendent's ability to utilize

his men and machines to their maximum capacity.

**Moderator:** Well then, have all the improvements in machinery, automatic irrigation, chemicals, etc. really reduced labor force requirements on the golf course?

**Snyder:** Not really! Although each improvement has reduced the amount of time to do a particular job, the demands of today's golfer, coupled with increased traffic on the golf course, plus time needed for repairing and servicing this equipment, require more manhours than in the past! And the operation of a so-called automatic irrigation system takes up much of the superintendent's time leaving less time for his other duties.

**Underwood:** The idea of buying a piece of equipment and thereby eliminating one man from the maintenance crew has perhaps been generated in the minds of a lot of club officials and general managers by clever advertising and salesmanship. Equipment improvements have enabled the superintendent to accomplish many additional jobs brought about by demands from the golfer for even better playing conditions.

**Moderator:** Let's move to another subject. Each year, we have more and more college trained turf management majors coming into the job market. Do they make ideal assistant superintendents?

**Williams:** A qualified yes and no! Yes if you are thinking of a situation where a superintendent is contemplating retirement within a period of five years or so and has that time to adequately train his own replacement. No if there is no chance for a long-range permanent position. Young students quickly tire of being an assistant. If they are on the ball, they will be seeking greater challenges, responsibility and remuneration. This indicates that the university student will only stick around for about two years as an assistant superintendent. Consequently, you have little stability in your organization. Also, your older workmen resent a constant change in supervision. Ideally, a

young university turf student will seek at least three or four years of on-the-job training and gradually work into a position as a superintendent at a club that is consistent with his background. His on-the-job training should preferably be at two or three different clubs for broader experience.

**Snyder:** My answer to the question is no! The primary requisite of a good assistant superintendent is experience in golf course maintenance work rather than an education in the science of turf management. He must be a sort of jack-of-all trades, and able to handle a myriad of jobs that constantly crop up on a golf course. He must be able to pick the best man available for any particular job while handling each man in a manner which keeps him happy with his job. A college trained turf management major rarely has these qualities and will not make a good assistant during the period needed to acquire them. As soon as he does acquire them he is ready for a superintendent's job of his own and will soon be leaving. The training of a new assistant must then start all over again.

**Moncrief:** Unless a college major has had previous experience in managing people and running a golf course, his formal training really leaves him short in qualifications for an assistant superintendents job. However, some superintendents and clubs are willing to take him on, give him this needed exposure and help move him on. Perhaps he should be called a "trainee superintendent" rather than "assistant superintendent."

**Moderator:** In this age of Womens Lib, what about women workers on the golf course? Ralph Hull, Superintendent at the Arizona Biltmore, has reported women make excellent gardeners in the clubhouse and hotel area.

**Moncrief:** In 1972 I visited Innisbrook Golf and Country Club in Florida where Arlin Grant is the superintendent. On our tour of the three 18-hole courses, I observed nine women working on the crew,

handling all sorts of equipment—mowing fairways, tees, greens, raking bunkers, etc. Their ages ranged from 16 to 39 and they were all in uniform. There have been no employment problems and there is a waiting list now with frequent calls wanting to know when employment will be available. Mr. Grant says the women come from many different occupations; waitresses, clerks and even junior college students. They enjoy their work, make good money and have done nothing to put their job in jeopardy, as someone is waiting to take over. I can foresee when this will be a common practice on golf courses in the future. Mr. Grant also tells me that his equipment repairs are not as great since the women have taken over. They won't tinker with the machine but will wait for the mechanic or superintendent to come by with

assistance.

**Moderator:** In this day and age, everyone is cost conscious. I constantly hear about the high cost of golf course maintenance. What are the facts? What really is the relationship between the golf course grounds maintenance budget and the total club budget?

**Williams:** Grounds maintenance cost is currently running about 16 per cent of the total golf expense dollar to the membership. Continued effort by the course superintendents and the USGA Green Section towards efficiency in maintenance has been responsible for this accomplishment. Most clubs are realizing that their golf course is the prime reason, the prime source of club income and are allocating appropriate funds for its maintenance.

**Moderator:** That's a good point to close on. Thank you all very much.

## *Nutrient Application Update*

by WILLIAM G. BUCHANAN, Eastern Agronomist, USGA Green Section

**T**urfgrass management today is a demanding scientific job where great changes are taking place along with the new demands on the superintendent. The terminology is changing as well. Today we say turfgrass management as opposed to "caretaking." Today we say superintendent instead of greenkeeper. Today we say scientific management as opposed to green thumb. Today we say nutrient application instead of fertilizer application. You know there has to be progress being made when the terminology changes from "spread the manure" to "apply the nutrients."

Dr. Jim Watson of Toro Company in a recent talk said, "Fertilization is the process of supplying plant nutrients to supplement the natural supplies of the soil." That pretty well says it all. Before we update the nutrient application too fast, let's look at where we have been and take another look at the plant nutrients.

The actively growing turfgrass plant is made up of water and organic compounds (dry matter). There are 16 elements that combine to make up the organic compounds in the plant

and provide the nutrition to the plant necessary to enable it to complete its life cycle. The 16 elements are carbon, hydrogen, oxygen, nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, zinc, copper, molybdenum, boron and chlorine. These essential elements can be divided into groups—macro-nutrients and micronutrients. Macronutrients are used in larger quantities than the micronutrients; although very small quantities of the micronutrients are required by the plant, generally less than two parts per million in plant tissue, they are just as important to the plant as the macronutrients.

A major portion of the dry matter of the plant is made up from three of the 16 elements—carbon, hydrogen and oxygen. The atmosphere provides the carbon via carbon dioxide. Water is the primary source that supplies the hydrogen after it has been absorbed by the root system. Carbon dioxide and water combine to provide sources for oxygen. Since carbon, hydrogen and oxygen make up a large percentage of the nutrients, they are classified as macronutrients. The remaining six